STANLEY

DS12

HYDRAULIC UTILITY SAW

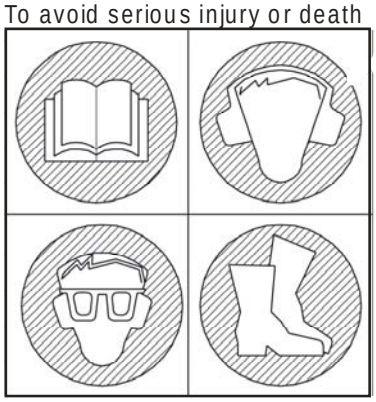
WARNING

SERIOUS INJURY OR DEATH COULD RESULT FROM IMPROPER REPAIR OR SERVICE OF THIS TOOL.

REPAIRS AND/OR SERVICE TO THIS TOOL MUST ONLY BE DONE BY AN AUTHORIZED AND CERTIFIED DEALER.

WARNING

To avoid serious injury or death



SAFETY, OPERATION AND MAINTENANCE
USER'S MANUAL

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SERVICING THE STANLEY UTILITY CHAINSAW: This manual contains safety, operation, and routine maintenance instructions. Stanley Hydraulic Tools recommends that servicing of hydraulic tools, other than routine maintenance, must be performed by an authorized and certified dealer. Please read the following warning.

⚠WARNING

SERIOUS INJURY OR DEATH COULD RESULT FROM THE IMPROPER REPAIR OR SERVICE OF THIS TOOL.

REPAIRS AND / OR SERVICE TO THIS TOOL MUST ONLY BE DONE BY AN AUTHORIZED AND CERTIFIED DEALER.

For the nearest authorized and certified dealer, call Stanley Hydraulic Tools at the number listed on the back of this manual and ask for a Customer Service Representative.

SAFETY SYMBOLS

Safety symbols and signal words, as shown below, are used to emphasize all operator, maintenance and repair actions which, if not strictly followed, could result in a life-threatening situation, bodily injury or damage to equipment.

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠ DANGER — **This safety alert and signal word indicate an imminently hazardous situation which, if not avoided, will result in death or serious injury.**

⚠ WARNING — **This safety alert and signal word indicate a potentially hazardous situation which, if not avoided, could result in death or serious injury.**

⚠ CAUTION — **This safety alert and signal word indicate a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.**

CAUTION — **This signal word indicates a potentially hazardous situation which, if not avoided, may result in property damage.**

NOTICE — **This signal word indicates a situation which, if not avoided, will result in damage to the equipment.**

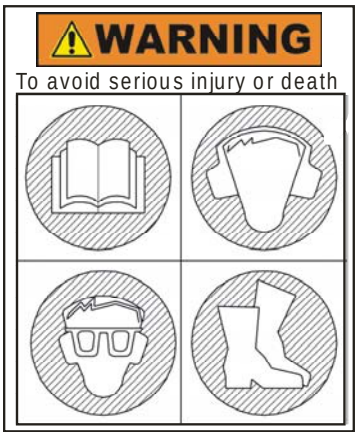
IMPORTANT — **This signal word indicates a situation which, if not avoided, may result in damage to the equipment.**

Always observe safety symbols. They are included for your safety and for the protection of the tool.

LOCAL SAFETY REGULATIONS

Enter any local safety regulations here. Keep these instructions in an area accessible to the operator and maintenance personnel.

SAFETY PRECAUTIONS



Tool operators and maintenance personnel must always comply with the safety precautions given in this manual and on the stickers and tags attached to the tool and hose.

These safety precautions are given for your safety. Review them carefully before operating the tool and before performing general maintenance or repairs.

Supervising personnel should develop additional precautions relating to the specific work area and local safety regulations. If so, place the added precautions in the space provided on page 4.

This tool will provide safe and dependable service if operated in accordance with the instructions given in this manual. Read and understand this manual and any stickers and tags attached to the tool and hoses before operation. Failure to do so could result in personal injury or equipment damage.

- Establish a training program for all operators to ensure safe operation.
- The operator must be familiar with all prohibited work areas such as excessive slopes and dangerous terrain conditions.
- Do not operate the chain saw unless thoroughly trained or under the supervision of an instructor.
- Always wear safety equipment such as goggles, ear protection, breathing protection, head protection, leg protection, gloves, snug fitting clothing (do not operate the saw when wearing loose clothing) and safety shoes at all times when operating the chain saw.
- Do not overreach or cut above shoulder height. Maintain proper footing and balance at all times.
- Do not inspect or clean the chain saw while the hydraulic power source is connected. Accidental engagement of the chain saw can cause serious injury.
- Always connect hoses to the chain saw hose couplers before energizing the hydraulic power source. Make sure all hose connections are tight.
- Do not operate the chain saw at fluid temperatures above 140°F/60°C. Operation at higher temperatures can cause higher than normal temperatures at the chain saw which can result in operator discomfort.
- Do not rely exclusively upon the safety devices built into the chain saw. As a chain saw user, several steps must be taken to keep your cutting jobs free from accident or injury:

  1. With a basic understanding of kickbacks, you can reduce or eliminate the element of surprise. Sudden surprise contributes to accidents.

  2. Keep a good firm grip on the chain saw with both hands, the right hand on the rear handle and the left hand on the front handle when operating the chain saw. Use a firm grip with thumbs and fingers encircling the chain saw handles. A firm grip helps reduce kickbacks and maintains control of the chain saw. Do not let go.

  3. Make sure the area in which you are cutting is free of obstructions.

  4. Cut at rated operating speeds (gpm).

  5. Do not overreach or cut above shoulder height.

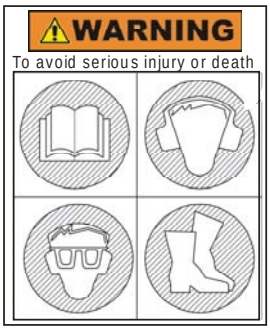
  6. Only use replacement bars and chains specified by Stanley or the equivalent.

- Make sure the chain guard is in place before operating the chain saw.
- Remove or control the water slurry to prevent yourself or others from slipping while cutting.
- Provide adequate ventilation in closed areas when operating a gas or diesel hydraulic power source.

SAFETY PRECAUTIONS

- Always be well rested and mentally alert before operating the chain saw.
- Do not allow bystanders near the chain saw when starting or cutting.
- Do not start cutting until you have a clear work area and secure footing.
- Keep all parts of the body away from the chain saw during operation.
- Carry the chain saw with the tool de energized and the bar and chain to the rear of your body.
- Do not operate a chain saw that is damaged, improperly adjusted, or not completely and securely assembled. Make sure the chain stops moving when the control trigger is released.
- Keep the handle dry, clean and free of hydraulic fluid.
- Do not use the chain saw near energized transmission lines.
- Turn off the power source or move the hydraulic control valve to neutral before setting the chain saw down.
- Use a guide bar scabbard when transporting the chain saw.
- Know the location of buried or covered electrical services before starting work.
- To avoid personal injury or equipment damage, all chain saw repair, maintenance and service must only be performed by authorized and properly trained personnel.
- Make sure the chain breaker and rivet spinner are securely mounted on flat, clean work surfaces. Check the mounting screws/bolts often.
- Check all chain breaker and rivet spinner components regularly for wear and general condition.
- Provide adequate lighting when operating the saw in a darkened area or at night.
- Always keep critical tool markings, such as labels and warning stickers legible. Always replace stickers or decals that have become worn or damaged.
- Be observant of hydraulic and water hoses that lay about the work area, especially in trenches where they can be hidden from view due to liquids that have accumulated within the space.
- Keep all parts of the body away from the cleats that are attached to the saw, as these are sharp and can be a puncture hazard.
- Improper handling, use, or maintenance can result in an oil leak or burst. Do not contact an oil leak as high pressure oil can cause injection into the body.
- Never stand in the path of the discharge, ejection of material from the work piece can cause personal injury.
- Never use the saw in a potentially explosive atmosphere.

TOOL STICKERS & TAGS



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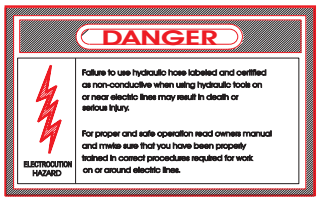
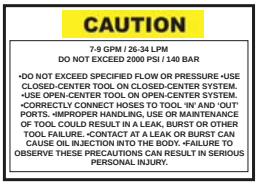

DANGER
Failure to use hydraulic hose labeled and certified as non-conductive when using hydraulic tools on or near electric lines may result in death or serious injury.
For proper and safe operation read owners manual and make sure that you have been properly trained in correct procedures required for work on or around electric lines.
ELECTROCUTION HAZARD

12412

71071 Name Tag


CAUTION
7-9 GPM / 26-34 LPM
DO NOT EXCEED 2000 PSI / 140 BAR
•DO NOT EXCEED SPECIFIED FLOW OR PRESSURE •USE CLOSED-CENTER TOOL ON CLOSED-CENTER SYSTEM. •USE OPEN-CENTER TOOL ON OPEN-CENTER SYSTEM. •CORRECTLY CONNECT HOSES TO TOOL 'IN' AND 'OUT' PORTS. •IMPROPER HANDLING, USE OR MAINTENANCE OF TOOL COULD RESULT IN A LEAK, BURST OR OTHER TOOL FAILURE. •CONTACT AT A LEAK OR BURST CAN CAUSE OIL INJECTION INTO THE BODY. •FAILURE TO OBSERVE THESE PRECAUTIONS CAN RESULT IN SERIOUS PERSONAL INJURY.

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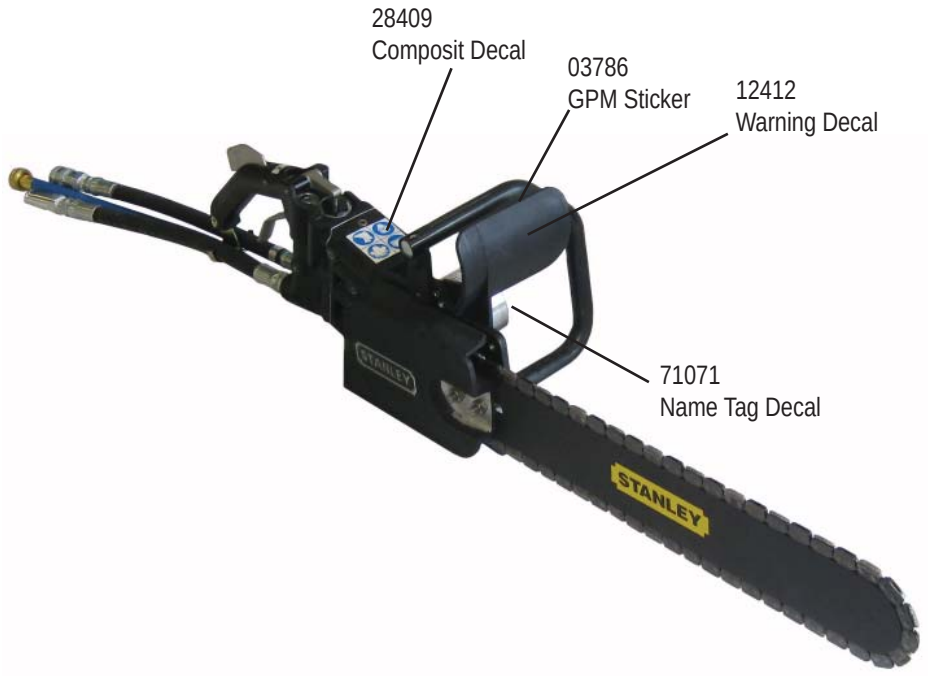
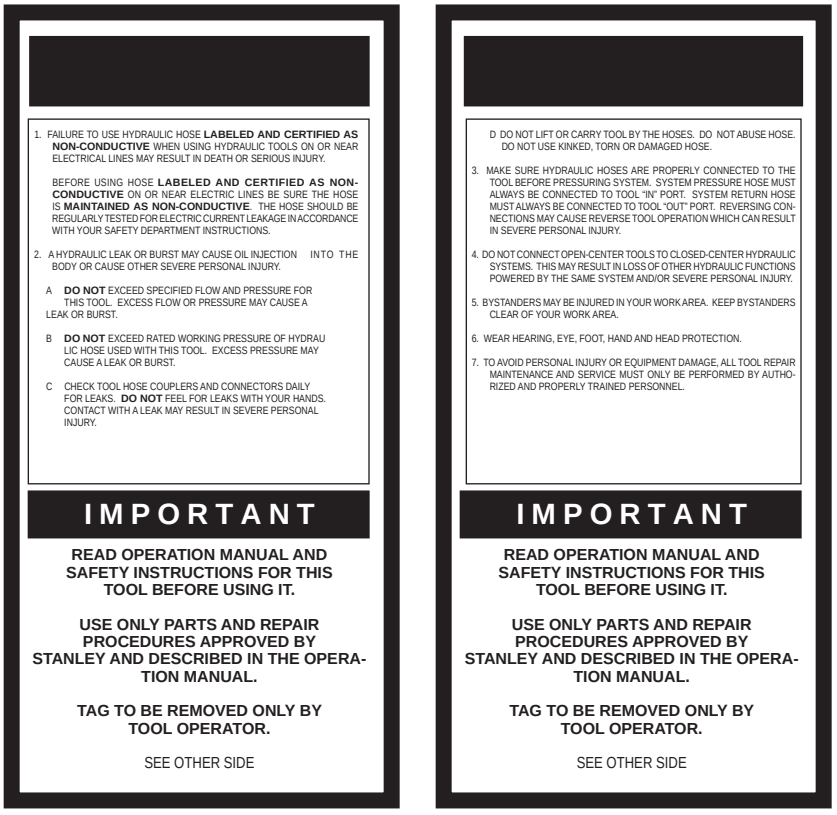


Always keep critical tool markings, such as labels and warning stickers legible. Always replace stickers or decals that have become worn or damaged.

The safety tag (p/n 15875) at right is attached to the tool when shipped from the factory. Read and understand the safety instructions listed on this tag before removal. We suggest you retain this tag and attach it to the tool when not in use.


1. FAILURE TO USE HYDRAULIC HOSE LABELED AND CERTIFIED AS NON-CONDUCTIVE WHEN USING HYDRAULIC TOOLS ON OR NEAR ELECTRICAL LINES MAY RESULT IN DEATH OR SERIOUS INJURY.
BEFORE USING HOSE LABELED AND CERTIFIED AS NON-CONDUCTIVE ON OR NEAR ELECTRIC LINES BE SURE THE HOSE IS MAINTAINED AS NON-CONDUCTIVE. THE HOSE SHOULD BE REGULARLY TESTED FOR ELECTRIC CURRENT LEAKAGE IN ACCORDANCE WITH YOUR SAFETY DEPARTMENT INSTRUCTIONS.
2. A HYDRAULIC LEAK OR BURST MAY CAUSE OIL INJECTION INTO THE BODY OR CAUSE OTHER SEVERE PERSONAL INJURY.
A DO NOT EXCEED SPECIFIED FLOW AND PRESSURE FOR THIS TOOL. EXCESS FLOW OR PRESSURE MAY CAUSE A LEAK OR BURST.
B DO NOT EXCEED RATED WORKING PRESSURE OF HYDRAU LIC HOSE USED WITH THIS TOOL. EXCESS PRESSURE MAY CAUSE A LEAK OR BURST.
C CHECK TOOL HOSE COUPLERS AND CONNECTORS DAILY FOR LEAKS. DO NOT FEEL FOR LEAKS WITH YOUR HANDS. CONTACT WITH A LEAK MAY RESULT IN SEVERE PERSONAL INJURY.
IMPORTANT
READ OPERATION MANUAL AND SAFETY INSTRUCTIONS FOR THIS TOOL BEFORE USING IT.
USE ONLY PARTS AND REPAIR PROCEDURES APPROVED BY STANLEY AND DESCRIBED IN THE OPERATION MANUAL.
TAG TO BE REMOVED ONLY BY TOOL OPERATOR.
SEE OTHER SIDE
D DO NOT LIFT OR CARRY TOOL BY THE HOSES. DO NOT ABUSE HOSE. DO NOT USE KINKED, TORN OR DAMAGED HOSE.
3. MAKE SURE HYDRAULIC HOSES ARE PROPERLY CONNECTED TO THE TOOL BEFORE PRESSURING SYSTEM. SYSTEM PRESSURE HOSE MUST ALWAYS BE CONNECTED TO TOOL "IN" PORT. SYSTEM RETURN HOSE MUST ALWAYS BE CONNECTED TO TOOL "OUT" PORT. REVERSING CONNECTIONS MAY CAUSE REVERSE TOOL OPERATION WHICH CAN RESULT IN SEVERE PERSONAL INJURY.
4. DO NOT CONNECT OPEN-CENTER TOOLS TO CLOSED-CENTER HYDRAULIC SYSTEMS. THIS MAY RESULT IN LOSS OF OTHER HYDRAULIC FUNCTIONS POWERED BY THE SAME SYSTEM AND/OR SEVERE PERSONAL INJURY.
5. BYSTANDERS MAY BE INJURED IN YOUR WORK AREA. KEEP BYSTANDERS CLEAR OF YOUR WORK AREA.
6. WEAR HEARING, EYE, FOOT, HAND AND HEAD PROTECTION.
7. TO AVOID PERSONAL INJURY OR EQUIPMENT DAMAGE, ALL TOOL REPAIR MAINTENANCE AND SERVICE MUST ONLY BE PERFORMED BY AUTHORIZED AND PROPERLY TRAINED PERSONNEL.
IMPORTANT
READ OPERATION MANUAL AND SAFETY INSTRUCTIONS FOR THIS TOOL BEFORE USING IT.
USE ONLY PARTS AND REPAIR PROCEDURES APPROVED BY STANLEY AND DESCRIBED IN THE OPERATION MANUAL.
TAG TO BE REMOVED ONLY BY TOOL OPERATOR.
SEE OTHER SIDE

SAFETY TAG P/N 15875 (shown smaller then actual size)

TOOL HOSE INFORMATION

HOSE TYPES

The rated working pressure of the hydraulic hose must be equal to or higher than the relief valve setting on the hydraulic system. There are three types of hydraulic hose that meet this requirement and are authorized for use with Stanley Hydraulic Tools. They are:

Certified non-conductive - constructed of thermoplastic or synthetic rubber inner tube, synthetic fiber braid reinforcement, and weather resistant thermoplastic or synthetic rubber cover. *Hose labeled **certified non-conductive** is the only hose authorized for use near electrical conductors.*

Wire-braided (conductive) - constructed of synthetic rubber inner tube, single or double wire braid reinforcement, and weather resistant synthetic rubber cover. *This hose is **conductive** and must never be used near electrical conductors.*

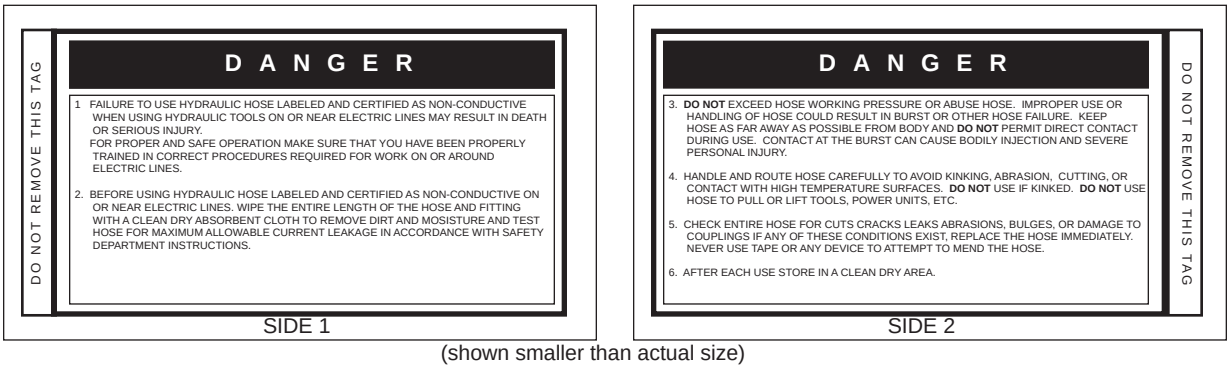
Fabric-braided (not certified or labeled non-conductive) - constructed of thermoplastic or synthetic rubber inner tube, synthetic fiber braid reinforcement, and weather resistant thermoplastic or synthetic rubber cover. *This hose is **not certified non-conductive** and must never be used near electrical conductors.*

HOSE SAFETY TAGS

To help ensure your safety, the following DANGER tags are attached to all hose purchased from Stanley Hydraulic Tools. DO NOT REMOVE THESE TAGS.

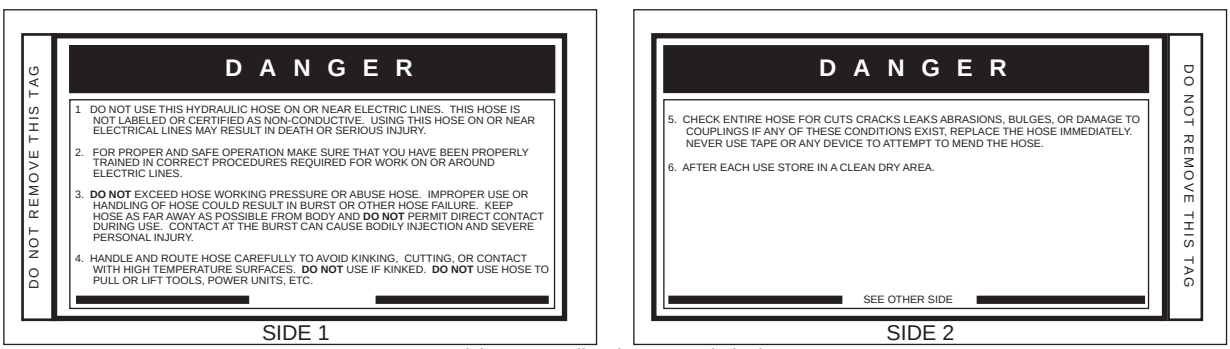
If the information on a tag is illegible because of wear or damage, replace the tag immediately. A new tag may be obtained from your Stanley Distributor.

THE TAG SHOWN BELOW IS ATTACHED TO "CERTIFIED NON-CONDUCTIVE" HOSE


DO NOT REMOVE THIS TAG
D A N G E R
1 FAILURE TO USE HYDRAULIC HOSE LABELED AND CERTIFIED AS NON-CONDUCTIVE WHEN USING HYDRAULIC TOOLS ON OR NEAR ELECTRIC LINES MAY RESULT IN DEATH OR SERIOUS INJURY.
FOR PROPER AND SAFE OPERATION MAKE SURE THAT YOU HAVE BEEN PROPERLY TRAINED IN CORRECT PROCEDURES REQUIRED FOR WORK ON OR AROUND ELECTRIC LINES.
2. BEFORE USING HYDRAULIC HOSE LABELED AND CERTIFIED AS NON-CONDUCTIVE ON OR NEAR ELECTRIC LINES. WIPE THE ENTIRE LENGTH OF THE HOSE AND FITTING WITH A CLEAN DRY ABSORBENT CLOTH TO REMOVE DIRT AND MOSISTURE AND TEST HOSE FOR MAXIMUM ALLOWABLE CURRENT LEAKAGE IN ACCORDANCE WITH SAFETY DEPARTMENT INSTRUCTIONS.
SIDE 1
D A N G E R
3. DO NOT EXCEED HOSE WORKING PRESSURE OR ABUSE HOSE. IMPROPER USE OR HANDLING OF HOSE COULD RESULT IN BURST OR OTHER HOSE FAILURE. KEEP HOSE AS FAR AWAY AS POSSIBLE FROM BODY AND DO NOT PERMIT DIRECT CONTACT DURING USE. CONTACT AT THE BURST CAN CAUSE BODILY INJECTION AND SEVERE PERSONAL INJURY.
4. HANDLE AND ROUTE HOSE CAREFULLY TO AVOID KINKING, ABRASION, CUTTING, OR CONTACT WITH HIGH TEMPERATURE SURFACES. DO NOT USE IF KINKED. DO NOT USE HOSE TO PULL OR LIFT TOOLS, POWER UNITS, ETC.
5. CHECK ENTIRE HOSE FOR CUTS CRACKS LEAKS ABRASIONS, BULGES, OR DAMAGE TO COUPLINGS IF ANY OF THESE CONDITIONS EXIST, REPLACE THE HOSE IMMEDIATELY. NEVER USE TAPE OR ANY DEVICE TO ATTEMPT TO MEND THE HOSE.
6. AFTER EACH USE STORE IN A CLEAN DRY AREA.
DO NOT REMOVE THIS TAG
SIDE 2

(shown smaller than actual size)

THE TAG SHOWN BELOW IS ATTACHED TO "CONDUCTIVE" HOSE.


DO NOT REMOVE THIS TAG
D A N G E R
1 DO NOT USE THIS HYDRAULIC HOSE ON OR NEAR ELECTRIC LINES. THIS HOSE IS NOT LABELED OR CERTIFIED AS NON-CONDUCTIVE. USING THIS HOSE ON OR NEAR ELECTRICAL LINES MAY RESULT IN DEATH OR SERIOUS INJURY.
2. FOR PROPER AND SAFE OPERATION MAKE SURE THAT YOU HAVE BEEN PROPERLY TRAINED IN CORRECT PROCEDURES REQUIRED FOR WORK ON OR AROUND ELECTRIC LINES.
3. DO NOT EXCEED HOSE WORKING PRESSURE OR ABUSE HOSE. IMPROPER USE OR HANDLING OF HOSE COULD RESULT IN BURST OR OTHER HOSE FAILURE. KEEP HOSE AS FAR AWAY AS POSSIBLE FROM BODY AND DO NOT PERMIT DIRECT CONTACT DURING USE. CONTACT AT THE BURST CAN CAUSE BODILY INJECTION AND SEVERE PERSONAL INJURY.
4. HANDLE AND ROUTE HOSE CAREFULLY TO AVOID KINKING, CUTTING, OR CONTACT WITH HIGH TEMPERATURE SURFACES. DO NOT USE IF KINKED. DO NOT USE HOSE TO PULL OR LIFT TOOLS, POWER UNITS, ETC.
SIDE 1
D A N G E R
5. CHECK ENTIRE HOSE FOR CUTS CRACKS LEAKS ABRASIONS, BULGES, OR DAMAGE TO COUPLINGS IF ANY OF THESE CONDITIONS EXIST, REPLACE THE HOSE IMMEDIATELY. NEVER USE TAPE OR ANY DEVICE TO ATTEMPT TO MEND THE HOSE.
6. AFTER EACH USE STORE IN A CLEAN DRY AREA.
SEE OTHER SIDE
DO NOT REMOVE THIS TAG
SIDE 2

(shown smaller than actual size)

Tool to Hydraulic Circuit Hose Recommendations

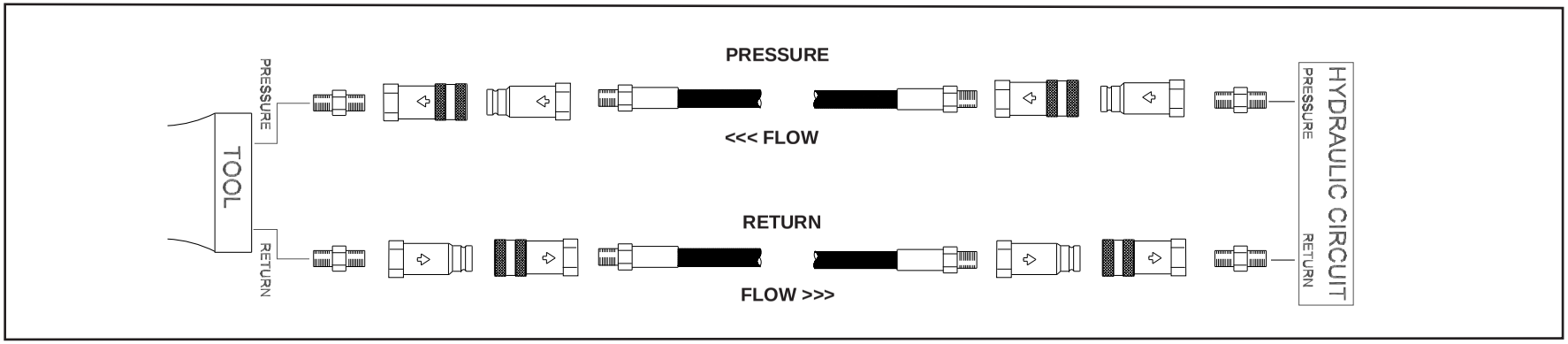
The chart to the right shows recommended minimum hose diameters for various hose lengths based on gallons per minute (gpm)/liters per minute (lpm). These recommendations are intended to keep return line pressure (back pressure) to a minimum acceptable level to ensure maximum tool performance.

This chart is intended to be used for hydraulic tool applications only based on Stanley Hydraulic Tools tool operating requirements and should not be used for any other applications.

All hydraulic hose must have at least a rated minimum working pressure equal to the maximum hydraulic system relief valve setting.

All hydraulic hose must meet or exceed specifications as set forth by SAE J517.

Oil Flow		Hose Lengths		Inside Diameter		USE (Press/Return)	Min. Working Pressure	
GPM	LPM	FEET	METERS	INCH	MM		PSI	BAR
Certified Non-Conductive Hose - Fiber Braid - for Utility Bucket Trucks								
4-9	15-34	up to 10	up to 3	3/8	10	Both	2250	155
Conductive Hose - Wire Braid or Fiber Braid -DO NOT USE NEAR ELECTRICAL CONDUCTORS								
4-6	15-23	up to 25	up to 7.5	3/8	10	Both	2500	175
4-6	15-23	26-100	7.5-30	1/2	13	Both	2500	175
5-10.5	19-40	up to 50	up to 15	1/2	13	Both	2500	175
5-10.5	19-40	51-100	15-30	5/8	16	Both	2500	175
5-10.5	19-40	100-300	30-90	5/8	16	Pressure	2500	175
				3/4	19	Return	2500	175
10-13	38-49	up to 50	up to 15	5/8	16	Both	2500	175
10-13	38-49	51-100	15-30	5/8	16	Pressure	2500	175
				3/4	19	Return	2500	175
10-13	38-49	100-200	30-60	3/4	19	Pressure	2500	175
				1	25.4	Return	2500	175
13-16	49-60	up to 25	up to 8	5/8	16	Pressure	2500	175
				3/4	19	Return	2500	175
13-16	49-60	26-100	8-30	3/4	19	Pressure	2500	175
				1	25.4	Return	2500	175



Typical Hose Connections

HTMA REQUIREMENTS

HYDRAULIC SYSTEM REQUIREMENTS	TOOL CATEGORY TYPE 1	 TYPE II	TYPE III	TYPE RR
FLOW RATE	4-6 gpm (15-23 lpm)	7-9 gpm (26-34 lpm)	11-13 gpm (42-49 lpm)	9-10.5 gpm (34-40 lpm)
TOOL OPERATING PRESSURE (at the power supply outlet)	2000 psi (138 bar)	2000 psi (138 bar)	2000 psi (138 bar)	2000 psi (138 bar)
SYSTEM RELIEF VALVE SETTING (at the power supply outlet)	2100-2250 psi (145-155 bar)	2100-2250 psi (145-155 bar)	2100-2250 psi (145-155 bar)	2200-2300 psi (152-159 bar)
MAXIMUM BACK PRESSURE (at tool end of the return hose)	250 psi (17 bar)	250 psi (17 bar)	250 psi (17 bar)	250 psi (17 bar)
Measured at a max. fluid viscosity of: (at min. operating temperature)	400 ssu* (82 centistokes)	400 ssu* (82 centistokes)	400 ssu* (82 centistokes)	400 ssu* (82 centistokes)
TEMPERATURE Sufficient heat rejection capacity to limit max. fluid temperature to: (at max. expected ambient temperature)	140° F (60° C)	140° F (60° C)	140° F (60° C)	140° F (60° C)
Min. cooling capacity at a temperature difference of between ambient and fluid temps	3 hp (2.24 kW) 40° F (22° C)	5 hp (3.73 kW) 40° F (22° C)	7 hp (4.47 kW) 40° F (22° C)	6 hp (5.22 kW) 40° F (22° C)
NOTE: Do not operate the tool at oil temperatures above 140° F (60° C). Operation at higher temperatures can cause operator discomfort at the tool.				
FILTER Min. full-flow filtration Sized for flow of at least: (For cold temp. startup and max. dirt-holding capacity)	25 microns 30 gpm (114 lpm)	25 microns 30 gpm (114 lpm)	25 microns 30 gpm (114 lpm)	25 microns 30 gpm (114 lpm)
HYDRAULIC FLUID Petroleum based (premium grade, anti-wear, non-conductive) VISCOSITY (at min. and max. operating temps)	100-400 ssu*	100-400 ssu* (20-82 centistokes)	100-400 ssu*	100-400 ssu*
NOTE: When choosing hydraulic fluid, the expected oil temperature extremes that will be experienced in service determine the most suitable temperature viscosity characteristics. Hydraulic fluids with a viscosity index over 140 will meet the requirements over a wide range of operating temperatures.				

*SSU = Saybolt Seconds Universal

NOTE:

These are general hydraulic system requirements. See tool Specification page for tool specific requirements.

OPERATION

PREOPERATION PROCEDURES

CHECK THE POWER SOURCE

1. Using a calibrated flow meter and pressure gauge, make sure the hydraulic power source develops a flow of 7-9 gpm/26-34 lpm at 2000 psi/140 bar.

2. Make certain that the power source is equipped with a relief valve set to open at 2100-2250 psi/145-155 bar.

3. Make certain that the power source return pressure does not exceed 250 psi/17 bar.

CONNECT HYDRAULIC HOSES

1. Wipe all hose couplers with a clean lint-free cloth before making connections. If necessary, use a light-weight penetrating oil in a spray can to clean the hose couplers before each connection.

2. Connect the hoses from the hydraulic power source to the chain saw fittings or quick disconnects. It is a good practice to connect return hoes first and disconnect them last to minimize or avoid trapped pressure within the chain saw.

3. Observe the arrow on the couplers to ensure that the flow is in the proper direction. The female coupler on the chain saw is the inlet (pressure) coupler.

4. Move the hydraulic circuit control valve to the “ON” position to operate the chain saw.

NOTE:
If uncoupled hoses are left in the sun, pressure increase inside the hoses might make them difficult to connect. Whenever possible, connect the free ends of the hoses together.

CONNECTING TO A WATER SUPPLY

1. Using a standard garden hose, connect the DS12 to a city or auxiliary water supply.

2. If you plan on operating the chain saw in freezing weather, make sure you purge all the water from the system after each use.

CHAIN TENSIONING AND BAR ADJUSTMENT

IMPORTANT

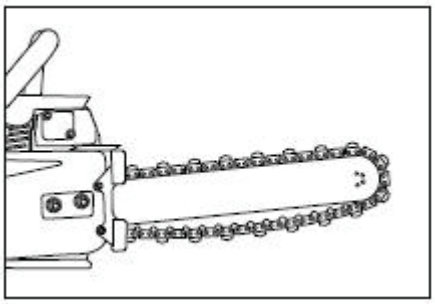
A properly tensioned chain will optimize cutting performance. The tensioning rule of thumb for the utility cutting chain saw is that a properly tensioned chain must not be bowstring tight and can be pulled freely around the guide bar by hand easily without binding. Caution should be used when adjusting these chains as the bar rail can become very sharp. Lift the chain away from the bar rail when rotating and use extreme caution.

Note: The chain on the utility saw is non-directional and may be installed to travel either direction.

PROPER CHAIN TENSION

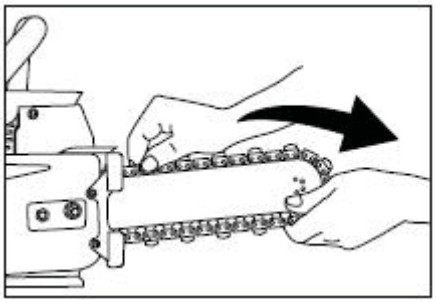
Check the chain tension often during operation, especially during the first 1/2 hour when using a new chain. Adjust the chain accordingly when it becomes loose.

If the chain is too loose, it could come off the bar, or it will allow the drive sprocket to spin without turning the chain, which can chew up the chain drive links. If the chain is too tight, a lot of the saw’s power goes into turning the chain rather than into the cut. In extreme over-tightened cases, the saw may not be able to turn the chain at all. In addition, damage can occur to the bar nose and premature stretch may occur.



HOW TO CHECK

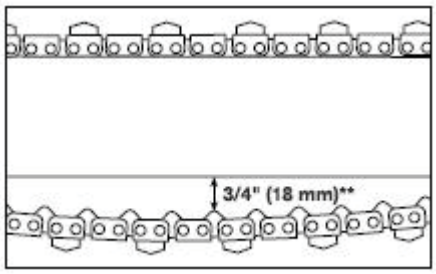
Before cutting, check for proper tension by pulling the chain around the bar by hand. If you cannot easily pull by hand, the chain is too tight and needs to be loosened.



OPERATION

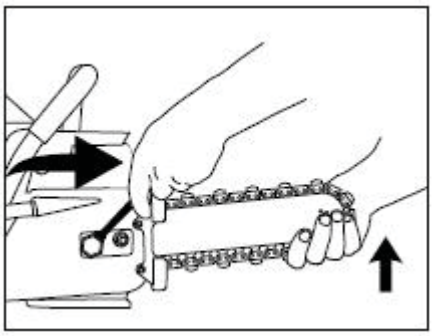
WHEN TO TENSION

All chains have a tendency to stretch when used. Diamond chains stretch more than wood cutting chains because of the abrasive materials they are cutting. When a chain stretches to a point where the drive links are hanging approximately 1/2 in-3/4 in (12-18 mm) below the bar, it's time to tension the chain.



HOW TO TENSION

To tension the chain, first loosen the side cover nuts, then while holding the nose of the bar up, use a screw driver to turn the tensioning screw clockwise until the chain drive links hanging below the bar are just beginning to enter the bar groove. Continue to hold up on the nose of the bar and firmly tighten the side cover nuts, (20 ft-lbs, 27 Nm). And remember, it's the side cover nuts that hold the bar in position.



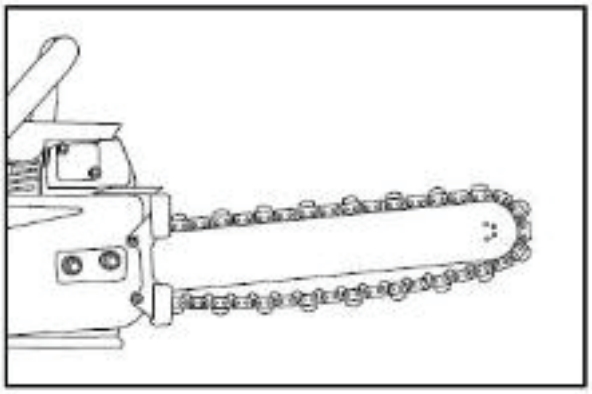
NOTE: MAKE SURE THE BAR ATTACHING NUTS ARE FULLY TIGHTENED AND THE CHAIN GUARD IS IN PLACE.

HOW TO PREVENT CHAIN TENSIONER BREAKAGE

Do not attempt to adjust the tensioner without first loosening the side cover nuts. Do not use the saw without making sure the side cover nuts are tight. If the side cover nuts are not tight, the bar can slip backwards during cutting and break the tensioner pin.

ADDITIONAL INFORMATION

Utility chainsaws operate with looser chain tension than wood chainsaws. It is common, on the utility chainsaw to have the drive links hang completely out of the bar. Wood cutting chainsaws use oil to lubricate the chain. The oil makes the chain very slippery and allows the drive links to fully nest between the teeth of the drive sprocket. The utility cutting chainsaws require water for cooling and flushing the cut. Water is not as good as oil as a lubricant. Also, there are cutting particles mixed in with the water. As a result, sometimes the drive links do not nest properly on the drive sprocket. When this happens, the chain acts like it got tighter. There seems to be "tight" spots and "loose" spots as you pull the chain around the bar. If you tension when the chain is in one of the loose spots, it will be too tight at some point in it's rotation around the bar. Rotating the chain completely around the bar by hand will let you know you have the chain properly tensioned.



ADDITIONAL TENSIONING TIPS

1. To reduce chain stretch and tensioning downtime, use 20 PSI (1.5 bar) or greater water pressure.
2. Oil the chain at the end of the day to prevent rust but be careful not to over tension in this condition.
3. When pulling the chain around the bar by hand, be careful not to touch the bar with thumb or forefinger. **The bar rails can be very sharp.** Using leather gloves grab only the diamond segments to pull the chain.
4. Always turn the hydraulic power source off before tensioning the chain.

OPERATION

CHECK THE WATER SUPPLY

IMPORTANT

Chain and bar damage will occur if the chain saw operates without the proper water supply.

1. Always have water running before starting the chain saw.

2. Recommended water flow 4 gpm/15 lpm at 50 psi/3.5 bar (2-gp/7.5 lpm at 20-psi/1.3 bar minimum).

PRE-CUT CHECKLIST

- If using the clamp make sure it is securely fastened before attaching the saw, tighten clamp nut with wrench.
- Proper Chain tension: Bottom tip of drive link hangs even with bottom of bar.
- Ensure proper water flow and hydraulic supply to power unit.
- Ensure cut can be made clear of dirt contact.
- Protective clothing/protection in place.
- Mark cut on pipe.
- Block pipe from shifting, support weight of pipe.

⚠WARNING

Before cutting make sure the material being cut is properly supported from falling or shifting.

OPERATING PROCEDURES

NEW SAW CHAIN BREAK-IN

1. Always make sure the bar and sprocket are in good condition.

2. Turn on the water supply.

3. Operate the chain saw for two minutes (away from the intended cut) and then check the chain tension.

4. Adjust accordingly using the procedures contained in Chain Tensioning and Bar Adjustments section of this manual.

CUTTING TIPS

If using pipe clamp (Applicable for 4”-12”, recommended for 8”-12”).

- Place clamp around top of pipe, hand tighten adjustment nut.
- Position saw on pipe for top down or bottom up (recommended) cut and slide saw clamp mount through receiver hole at top of clamp, secure with snap pin.
- Slide clamp/saw assembly around pipe to optimum cutting position and tighten clamp nut with wrench.
- Ensure saw is positioned to allow handle to pivot during cut unobstructed, and ensure saw tip doesn’t contact dirt.

⚠CAUTION

When the saw cut is complete be watchful of sharp edges around the material that has been cut.

CUTTING FREE-HAND OR WITH PIPE CLAMP

⚠WARNING

When exiting the cut, avoid applying high feed loads as unexpected movement of the saw may result. Using both hands, maintain firm control of the tool throughout the entire cut.

- Position saw to avoid pinching the bar or chain as pipe is cut, support pipe from top and side to prevent cut pipe from injuring operator.
- Hold saw so chain isn’t in contact with pipe, start water and activate saw to recommended flow rate, press chain against pipe slowly, apply pressure to cut through pipe.
- Pressure can be applied to cut until saw starts to lug, if need be back off on the cutting pressure to maintain a good cutting speed.
- If cut in a 12” pipe exceeds 5 minutes, cut pulls to one side, or diamond coating is gone, chain may need replacement.

OPERATION

PLAN THE CUT

1. Plan your cuts to prevent injury to yourself and to keep from pinching the saw bar and chain as a result of falling pieces of iron pipe.

2. Outline the material being cut with a permanent marker for a visual guide (especially when cutting free hand).

3. Know what kind of material you are cutting.

Top down Cut

TYPES OF CUTS

The DS12 can be operated not only using the pipe clamp but also make free-hand cuts, any size pipe can be cut free hand.

Utility Chain Saw Cuts

- Ductile Iron Pipe
- Insituform Pipe Lining
- PVC Pipe
- Copper Pipe
- Steel Roofing Material
- HDPE Pipe
- Roofing Shingles
- CMU Concrete Block
- Non Reinforced Concrete
- Roofing Tile
- Lumber
- Masonry

1. When using the pipe clamp with a 15-inch bar the cut capacity is 4” to 10”.

2. When using the pipe clamp with a 18-inch bar the cut capacity is 4” to 12”.

3. Do not use a cutting force in excess of 45 lbs/20 kg. Excessive force causes the chain to slow down or stall and causes premature wear of the saw bar and chain.

4. Always maintain a high chain speed. High chain speeds produce the best results.

5. Avoid aggressive/heavy forces. Aggressive force can causes premature bar and chain wear.

Bottom up Cut

COLD WEATHER OPERATION

If the saw is to be used during cold weather, preheat the hydraulic fluid at low power source speed. When using the normally recommended fluids, fluid should be at or above 50°F/10°C (400 ssu/82 centistokes) before use.

Damage to the hydraulic system or chain saw can result from use with fluid that is too viscous or thick.

TOOL EQUIPMENT & CARE

NOTICE

In addition to the Safety Precautions on page in this manual, observe the following for equipment protection and care.

- Make sure all couplers are wiped clean before connection.
- The hydraulic circuit control valve must be in the “OFF” position when coupling or uncoupling hydraulic tools. Failure to do so may result in damage to the quick couplers and cause overheating of the hydraulic system.
- Always store the tool in a clean dry space, safe from damage or pilferage.
- Make sure the circuit PRESSURE hose (with male quick disconnect) is connected to the “IN” port. The circuit RETURN hose (with female quick disconnect) is connected to the opposite port. Do not reverse circuit flow. This can cause damage to internal seals.
- Always replace hoses, couplings and other parts with replacement parts recommended by Stanley Hydraulic Tools. Supply hoses must have a minimum working pressure rating of 2500 psi/172 bar.
- Do not exceed the rated flow (see Specifications) page in this manual for correct flow rate and model number. Rapid failure of the internal seals may result.
- Always keep critical tool markings, such as warning stickers and tags legible.
- Tool repair should be performed by experienced personnel only.
- Make certain that the recommended relief valves are installed in the pressure side of the system.
- Do not use the tool for applications for which it was not intended.
- Oil the chain at the end of the day to prevent rust but be careful not to over tension in this condition..

TROUBLESHOOTING

CHAIN SAW TROUBLESHOOTING

Excessive vibration and cuts rough.	Loose chain tension.	Retension the chain.
	Excessive feed force.	Reduce feed force.
Chain saw will not cut straight.	Operator feed force not applied directly over centerline of saw. Accumulated saw bar wear and uneven chain segment profile wear.	move left hand closer to centerline of saw bar. Turn the saw bar over and dress rails square. Replace the saw bar and chain.
Loss of power.	Drive sprocket slipping on Trantorque® adapter.	Adjust and tighten Trantorque® adapter, (30 ft. lbs/40.6 Nm).
Chain saw does not run.	Power source not functioning.	Check power source for proper flow and pressure (7-9 gpm/26-34 lpm @ 2000 psi/140 bar).
	Coupler or hoses are blocked.	Remove obstruction.
	Mechanical failure.	Disassemble the chain saw and inspect for damage.
Chain saw runs backwards.	Pressure and return hoses reversed.	Connect for proper flow direction. Motor shaft must rotate clockwise.
Trigger is hard to press.	Pressure and return hoses reversed.	Connect to proper flow direction. Motor shaft must rotate clockwise.
	Back pressure too high.	Should not exceed 250 psi/17 bar @ 9 gpm/34 lpm measured at the end of the chain saw's operating hoses.
Fluid leakage around drive sprocket.	Motor shaft seal failure.	Replace as required.
Fluid leakage between the rear gear housing and the chain saw adaptor.	Motor face seal failure.	Replace as required.
Fluid leakage between the valve handle and the extension housing.	Oil tube seal failure.	Replace as required.
Fluid leakage between the extension housing assembly and the chain saw adaptor.	Oil tube seal failure.	Replace as required.
Chain saw cuts slow.	Insufficient hydraulic fluid flow or low relief valve setting.	Adjust proper hydraulic fluid flow to proper gpm. For optimum performance, adjust relief valve to 2100-2250 psi/145-155 bar.

TROUBLESHOOTING

CHAIN SAW TROUBLESHOOTING CONTINUED

Chain saw cuts slow.	Back pressure too high.	Should not exceed 250 psi/17 bar @ 9 gpm/34 lpm measured at the end of the chain saw's operating hoses.
	Loss of diamond segment side clearance.	Replace the chain.
	Hydraulic fluid mixed in water supply.	Check motor for leaks.
	Wrong chain for application.	Scale down to a lower numbered chain.
	Wire edged bar rails.	Dress rails square.
Excessive vibration and cuts rough.	Segment(s) broken or missing from chain.	Remove and repair broken segment or replace chain.

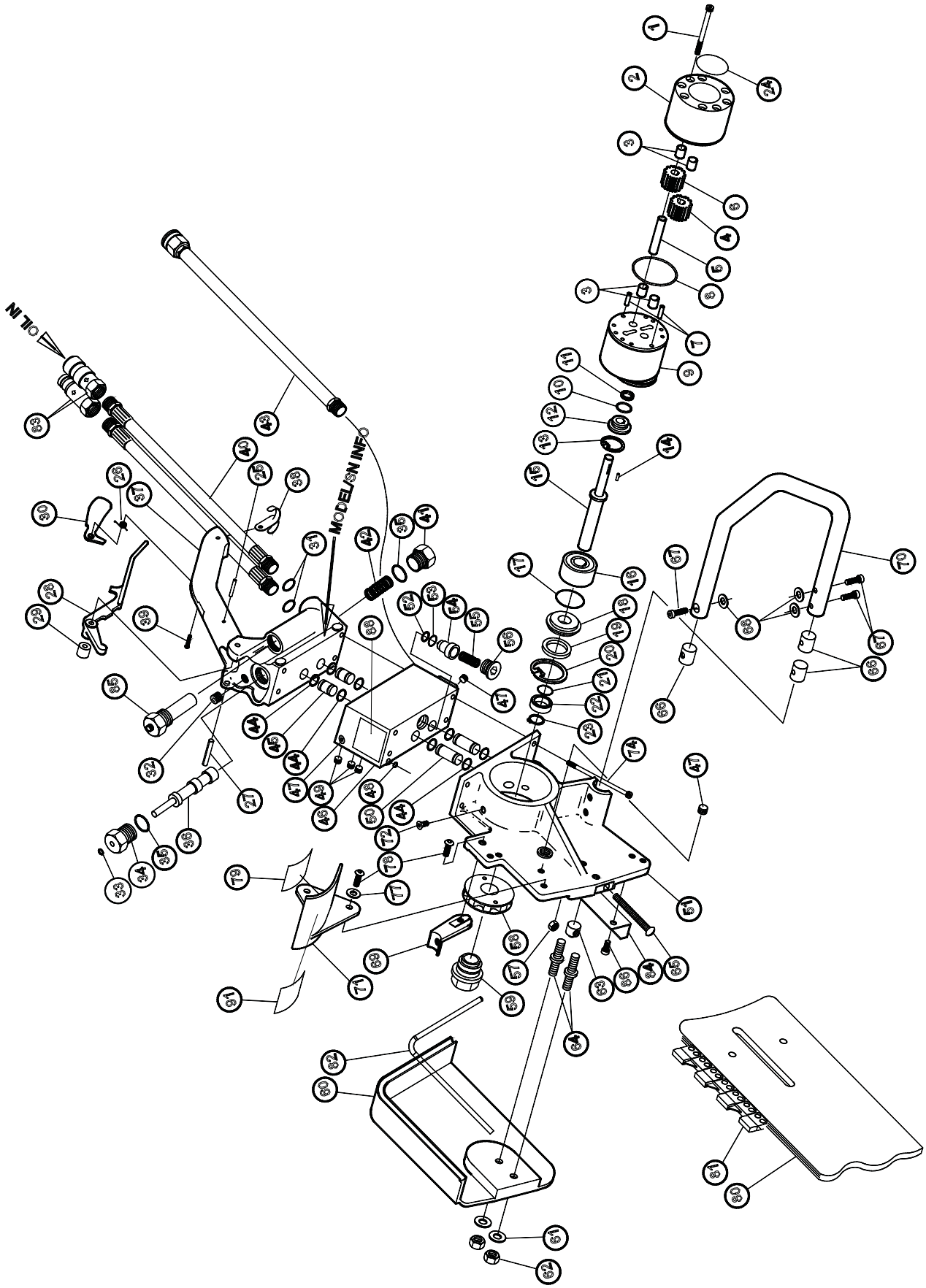
SPECIFICATIONS

Input Flow Range	7-9 gpm / 26-34 lpm
Input Pressure	2000 psi / 140 bar
Chain Type	Force 4 (.444) inch Pitch
Weight (with bar)	26 lbs / 11.8 kg
Length	35 or 38 inches / 89 or 97 cm
Width	9 inches / 23 cm
Lubrication / Cooling	Internal Water Channels in Bar
Porting	-8 SAE O-Ring
Connection	3/8 inch Flush-Face Quick Disconnect Coupler
Hose Whips	Yes

ACCESSORIES

Water Pump, 12 VDC, DC Plug, Marine Type	DCP30100
Water Pump, 12 VDC, Battery Clips	DCP30101
3/8 inch Flush-Face Coupler Set	03971
25 feet, 1/2 inch Dual Hose with Flush-Face Couplers	31972
50 feet, 1/2 inch Dual Hose with Flush-Face Couplers	31848
Chain 15-inch	71050
Bar 15-inch	71049
Chain 18-inch	71048
Bar 18-inch	71047
Pipe Clamp Assembly	71055
Drive Sprocket	71046
Water Flow Meter, 0-7 GPM	60859

DS12 PARTS ILLUSTRATION



DS12 PARTS LIST

ITEM	P/N	QTY	DESCRIPTION
	25688	1	Motor Assy - DS12315 & DS12318
1	00208	8	Capscrew, 1/4-20 x 1-3/4
2	06861	1	Rear Gear Housing
3	06316	4	Bushing
4	06838	1	Drive Gear
5	06840	1	Idler Shaft
6	06839	1	Idler Gear
7	00713	2	Dowel Pin
8	00178	1	O-Ring*
9	21417	1	Front Bearing Housing
10	350771	1	O-Ring*
11	00669	1	Quad Ring*
12	19884	1	Seal Gland
13	00170	1	Retaining Ring
14	03227	1	Needle Roller
15	20466	1	Motor Shaft
16	00148	1	Bearing
17	02905	1	O-Ring*
18	03104	1	Keeper Seal & Bearing
19	03110	1	Teflon Seal*
20	00633	1	Retaining Ring
21	01211	1	O-Ring, 2-016 R16*
22	03280	1	Spacer, Seal Race
23	20472	1	Retaining Ring
24	71071	1	Name Tag
25	03278	1	Roll Pin
26	22701	1	Torsion Spring
27	31804	1	Roll Pin, 1/4 x 2 Stainless
28	22707	1	Trigger
29	02920	1	On/Off Valve Spacer
30	22704	1	Safety Catch
31	01605	2	O-Ring
32	01219	1	Pipe Plug (Before 2003)
	340045	1	SAE Plug (2003 and Later)
33	00112	1	Quad Ring*
34	02931	1	Valve Cap
35	01604	2	O-Ring, 3-910 R17*
36	02925	1	Valve Spool
37	28552	1	Valve Handle Assy (incl. 32 & 41)
38	20459	1	Hose Clip
39	00787	1	Capscrew, 1/4-20 x 1-1/4
40	07226	2	Hose Assy, 18 inch
41	09437	1	Plug
42	02916	1	Comp. Coil Spring
43	20497	1	Water Hose Assy
44	00175	8	O-Ring, 2-014 R17*
45	00174	2	Oil Tube
46	20453	1	Extension Housing
47	00961	3	Pipe Plug
48	00018	1	O-Ring, 2-013 R17*
49	22717	3	Pipe Plug, 1/16-27
50	02912	2	Oil Tube
51	22713	1	Chain Saw Adaptor
52	25260	1	Quad Ring*
53	01211	1	O-Ring, 2-016 R16*
54	20463	1	Water Valve
55	20458	1	Spring
56	350237	1	Hollow Hex Plug
57	22752	1	Hex Nut, 5/16-18 ESNA
58	71046	1	Drive Sprocket
59	20471	1	Trantorque® Adaptor
60	71051	1	Chain Guard
61	02766	2	Plain Washer
62	03276	2	Nut
63	22702	1	Bar Adjustment Nut
64	20465	2	Stud
65	22714	1	Screw, 5/16-18 x 2-3/4
66	02649	3	Handle Bar Retainer
67	02764	3	Screw, 5/16 x 3/4
68	02643	3	Neoprene Washer
69	20461	1	Handle Strut Assy
70	02936	1	Handle Bar
71	07473	1	Hand Guard
72	03006	2	Capscrew, 5/16-18 x 3/4
74	01758	4	Screw
77	12175	2	Washer, 5/16
78	22715	3	Capscrew, 5/16-18 x .625
79	03786	1	GPM Sticker
80	71049		Bar 15-inch
	71047	1	Bar 18-inch
81	71050		Chain 15-inch
	71048	1	Chain 18-inch
82	20721	1	Cord Stock
83	03971	1	Coupler Set
84	22945	1	Chain Cover
85	25635	1	Flow Regulator
86	23196	2	Capscrew, 5/16-18 UNC x 3
	23517	1	Sprocket Wrench (Not Shown)
88	28409	1	Composit Sticker
91	12412	1	Danger Sticker

SEAL KIT PART NUMBER 22798

00178	O-Ring	1
350771	O-Ring	1
00669	Quad Ring	1
02905	O-Ring	1
03110	Teflon Seal	1
01211	O-Ring	2
00112	Quad Ring	2
01604	O-Ring	2
03847	Hose Washer	1
00175	O-Ring	8
00018	O-Ring	1
25260	Quad Ring	1
01605	O-Ring	3

* Part of Seal Kit

WARRANTY

Stanley Hydraulic Tools (hereinafter called “Stanley”), subject to the exceptions contained below, warrants new hydraulic tools for a period of one year from the date of sale to the first retail purchaser, or for a period of 2 years from the shipping date from Stanley, whichever period expires first, to be free of defects in material and/or workmanship at the time of delivery, and will, at its option, repair or replace any tool or part of a tool, or new part, which is found upon examination by a Stanley authorized service outlet or by Stanley’s factory in Milwaukie, Oregon to be DEFECTIVE IN MATERIAL AND/OR WORKMANSHIP.

EXCEPTIONS FROM WARRANTY

FREIGHT COSTS: Freight costs to return parts to Stanley, if requested by Stanley for the purpose of evaluating a warranty claim for warranty credit, are covered under this policy if the claimed part or parts are approved for warranty credit. Freight costs for any part or parts which are not approved for warranty credit will be the responsibility of the individual.

SEALS & DIAPHRAGMS: Seals and diaphragms installed in new tools are warranted to be free of defects in material and/or workmanship for a period of 6 months after the date of first usage, or for a period of 2 years from the shipping date from Stanley, whichever period expires first.

CUTTING ACCESSORIES: Cutting accessories such as breaker tool bits are warranted to be free of defects in material and or workmanship at the time of delivery only.

ITEMS PRODUCED BY OTHER MANUFACTURERS: Components which are not manufactured by Stanley and are warranted by their respective manufacturers.

a. Costs incurred to remove a Stanley manufactured component in order to service an item manufactured by other manufacturers.

ALTERATIONS & MODIFICATIONS: Alterations or modifications to any tool or part. All obligations under this warranty shall be terminated if the new tool or part is altered or modified in any way.

NORMAL WEAR: any failure or performance deficiency attributable to normal wear and tear such as tool bushings, retaining pins, wear plates, bumpers, retaining rings and plugs, rubber bushings, recoil springs, etc.

INCIDENTAL/CONSEQUENTIAL DAMAGES: To the fullest extent permitted by applicable law, in no event will STANLEY be liable for any incidental, consequential or special damages and/or expenses.

FREIGHT DAMAGE: Damage caused by improper storage or freight handling.

LOSS TIME: Loss of operating time to the user while the tool(s) is out of service.

IMPROPER OPERATION: Any failure or performance deficiency attributable to a failure to follow the guidelines and/or procedures as outlined in the tool’s operation and maintenance manual.

MAINTENANCE: Any failure or performance deficiency attributable to not maintaining the tool(s) in good operating condition as outlined in the Operation and Maintenance Manual.

HYDRAULIC PRESSURE & FLOW: Any failure or performance deficiency attributable to excess hydraulic pressure, excess hydraulic back-pressure, or excess hydraulic flow.

REPAIRS OR ALTERATIONS: Any failure or performance deficiency attributable to repairs by anyone which in Stanley’s sole judgement caused or contributed to the failure or deficiency.

MIS-APPLICATION: Any failure or performance deficiency attributable to mis-application. “Mis-application” is defined as usage of products for which they were not originally intended or usage of products in such a matter which exposes them to abuse or accident, without first obtaining the written consent of Stanley.

WARRANTY REGISTRATION: STANLEY ASSUMES NO LIABILITY FOR WARRANTY CLAIMS SUBMITTED FOR WHICH NO TOOL REGISTRATION IS ON RECORD. In the event a warranty claim is submitted and no tool registration is on record, no warranty credit will be issued without first receiving documentation which proves the sale of the tool or the tools’ first date of usage. The term “DOCUMENTATION” as used in this paragraph is defined as a bill of sale, or letter of intent from the first retail customer. A WARRANTY REGISTRATION FORM THAT IS NOT ALSO ON RECORD WITH STANLEY WILL NOT BE ACCEPTED AS “DOCUMENTATION”.

NO ADDITIONAL WARRANTIES OR REPRESENTATIONS

This limited warranty and the obligation of Stanley thereunder is in lieu of all other warranties, expressed or implied including merchantability or fitness for a particular purpose except for that provided herein. There is no other warranty. This warranty gives the purchaser specific legal rights and other rights may be available which might vary depending upon applicable law.

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